

### **REMARKS**

By this amendment, Applicants amend claims 7 and 13 and add new claims 14-34. No new matter is added by these amendments.

In the Office Action mailed March 18, 2005, the Examiner: (1) rejects claims 1 and 3-6 under 35 U.S.C. § 102(b) as allegedly anticipated by Banks (U.S. Patent No. 5,796,376); (2) rejects claim 2 under 35 U.S.C. § 103(a) as allegedly unpatentable over Banks in view of Trevers et al. (U.S. Patent Application Publication No. 2003/0206228); (3) rejects claims 7 and 9-13 under 35 U.S.C. § 103(a) as allegedly unpatentable over Banks in view of Lavelle et al. (U.S. Patent No. 4,642,794); and (4) rejects claim 8 under 35 U.S.C. § 103(a) as allegedly unpatentable over Banks in view of Lavelle et al. and Trevers et al.

In light of the forgoing amendments and the following remarks, Applicants respectfully traverse each of these rejections. Each ground of rejection is addressed in turn below.

#### ***Claim 1***

Claim 1 stands rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Banks. Applicants respectfully traverse these rejections because Banks fails to show each and every recitation of the rejected claims.

With respect to claim 1, the Examiner asserts that, in Banks, “the interface *inherently* receives the plurality of frames first, then receives the plurality of display instructions to process the received plurality of frames.” Office Action, p. 2, ll. 15-16 (emphasis added). However, this is not the case.

Banks is drawn to “an electronic display sign which is capable of full video animation.” Banks, col. 2, ll. 36-38. “In order to enable animation on an electronic display sign, the sign controller must output raster image data to the display panels at 24 frames or more per second.” Id. at col. 4, ll. 47-49. In order to achieve such rates, Banks provides a *stream* of 64 byte data blocks, each data block being proceeded by an address byte. Id. at col. 7, ll. 9-17.

[T]he accompanying signal is analyzed as follows: 1) the bits 1-5 are sent to an address decoder circuit ... which compares the address encoded in those 5 bits with the settings of the DIP switches on a panel address selector 74. *If the address decoder determines a match*, the subsequent 64 bytes of data transmitted on the sign system bus 24 are loaded into load buffer 62 and consequently into panel RAM memory 66. .... The panel [RAM] controller [64] loads data from panel RAM 66 to a refresh buffer 68 and subsequently to a latch array 70 where sixty-four latches are set in accordance with the data.

Id. at col. 7, ll. 10-29.

Thus, contrary to the Examiner’s assertions, the display panel 26 of Banks displays each frame that is addressed to it, without separate display instruction from the sign controller. Id. The received frame is continuously displayed “until a new bit-mapped data signal addressed to the panel is received by the panel or a system reset signal is received by the panel.” Id. at col. 9, ll. 62-67.

The Examiner further asserts that the “commands” from sign controller 22 of Banks “*must inherently* tell the panel controller when to be in refresh mode.” Office Action, p. 3, ll. 1-2 and 17-18 (emphasis added). However, this is not the case. Rather than being contained in a command from sign controller 22, the refresh signal in Banks is generated by sector drive circuitry 72, which is a part of the display panel control card

58. Banks, col. 7, ll. 30-34; and FIG. 6. “The [panel RAM] controller [64] is in refresh mode unless it is acquiring data from the panel data bus 24.” Id. at col. 7, ll. 40-42.

For at least these reasons, Banks fails to show “an interface for first receiving a plurality of frames, and second receiving a plurality of display instructions,” as recited in claim 1. Consequently, Banks fails to support the Examiner’s rejection of claim 1, and Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. § 102(b) be withdrawn and the claim allowed.

### ***Claims 3-6***

Claims 3-6 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Banks. However, claims 3-6 depend from claim 1. As explained, the rejection of claim 1 is not supported by Banks. Consequently, the rejection of claims 3-6 likewise lacks support in Banks for at least the same reasons set forth above in connection with claim 1. Accordingly, Applicants respectfully request that the rejections of claims 3-6 under 35 U.S.C. § 102(b) likewise be withdrawn and the claims allowed.

### ***Claim 2***

Claim 2 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Banks in view of Trevers et al. Applicants respectfully traverse this rejection because Banks and Trevers et al., whether taken singly or in combination, fail to teach or fairly suggest each and every recitation of claim 2.

Initially, Applicants note that claim 2 depends from claim 1. As explained above, the rejection of claim 1 lacks support in Banks. Further, Trevers et al. is not relied upon to teach, and does not teach, the above-cited deficiencies of Banks. Accordingly, the

rejection of claim 2 likewise lacks support in Banks and Trevers et al., whether taken alone or in combination, and Applicants respectfully request that the rejection of claim 2 under 35 U.S.C. § 103(a) be withdrawn and the claim allowed.

Further, in combining Banks and Trevers et al., the Examiner admits that “Banks does not teach that each of the plurality of display instructions identifies the one frame for processing.” Office Action, p. 5, ll. 6-7. In order to cure this deficiency, the Examiner asserts that:

It would have been obvious to one of ordinary skill ... to modify the device of Banks so that each of the plurality of display instructions identifies the one frame for processing ... because Trevers suggests that this *must* be done so that the processor knows which frame to process.

Id. at p. 5, ll. 15-18 (emphasis added).

However, as explained above, the display panel 26 of Banks displays each frame that is addressed to it, without a display instruction from the sign controller. Banks, col. 7, ll. 10-29. Thus, contrary to the Examiner's assertion, the Banks system does not require an identification of one frame for processing since there is only one frame available to process: the frame that is currently contained in panel RAM 66. Id.

Further, in order to provide full video animation, Banks requires high speed data transfer. Id. at col. 4, ll. 47-49. Consequently, one of ordinary skill would not have been motivated to add an unnecessary message identifying the only frame available for processing, because this would simply delay processing of the frame with no benefit in functionality.

For at least these additional reasons, the rejection of claim 2 lacks support in Banks and Trevers et al., whether taken alone or in combination. Accordingly,

Applicants respectfully request that the rejection of claim 2 under 35 U.S.C. § 103(a) be withdrawn and the claim allowed.

***Claims 7 and 13***

Claims 7 and 13 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Banks in view of Lavelle et al. Applicants respectfully traverse these rejections because Banks and Lavelle et al., alone or combined, fail to teach or suggest the recitations of the rejected claims.

Initially, Applicants note that claims 7 and 13 are amended herein to correct a grammatical error. Applicants submit that the scope of these claims is unaffected by this amendment.

With respect to claims 7 and 13, the Examiner admits that “Banks does not teach that the receiving is based on messages.” Office Action, p. 6, l. 14. In order to cure this deficiency, the Examiner asserts that “[I]t would have been obvious to one of ordinary skill ... to modify the device of Banks so that the receiving is based on messages ... because Lavelle suggests that *messages are needed* so that the processor knows what to do.” Id. at p. 6, l. 21, through p. 7, l. 2 (emphasis added).

However, as explained above, the display panel 26 of Banks displays each frame that is addressed to it, without further instruction. Banks, col. 7, ll. 10-29. Thus, contrary to the Examiner’s assertion, such messages are not “needed” in Banks. Because Banks is drawn to the transfer of data at high speeds (Id. at col. 4, ll. 47-49), one of ordinary skill would not have been motivated to add unneeded display instruction messages, because this would delay processing of the frame with no additional functionality.

For at least these reasons, the rejection of claims 7 and 13 lacks support in Banks and Lavelle et al., whether taken alone or in combination. Accordingly, Applicants respectfully request that the rejections of claim 7 and 13 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

***Claims 9-12***

Claims 9-12 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Banks in view of Lavelle et al. However, claims 9-12 depend from claim 7. As explained, the rejection of claim 7 is not supported by Banks or Lavelle et al., whether taken alone or in combination. Consequently, the rejection of claims 9-12 likewise lacks support in Banks in view of Lavelle et al. for at least the same reasons set forth above in connection with claim 7. Accordingly, Applicants respectfully request that the rejections of claims 9-12 under 35 U.S.C. § 103(a) likewise be withdrawn and the claims allowed.

***Claim 8***

Claim 8 under 35 U.S.C. § 103(a) as allegedly unpatentable over Banks in view of Lavelle et al. and Trevers et al. In the rejection, the Examiner asserts that "Claim 8 is similar in scope to Claim 2, and therefore is rejected under the same rationale." However, as explained above, the rationale relied upon lacks foundation in Banks, Lavelle et al. or Trevers et al., whether taken singly or in any combination. Accordingly, the rejection of claim 8 likewise lacks foundation for at least the reasons given above with respect to claim 2, and Applicants respectfully request that the rejection of claim 8 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

***New Claims 14-34***

By this amendment, Applicants add new claims 14-34 in order to claim additional aspects of their invention. Support for these amendments may be found in Applicants' specification and drawings as originally filed.

New independent claim 28 recites "[a] system for rapidly refreshing a sign display panel," comprising, *inter alia*, a controller configured to:

send multiple frames of display data to the display units through the interface, the frames being contained in one or more messages of a first type; and

send a display instruction to the display units through the interface, the display instruction instructing the display units to display one frame of the stored frames, the display instruction being contained in a message of a second type.

Claim 28, ll. 9-14.

As explained above, Banks, Trevers et al. and Lavelle et al. (whether taken alone or in combination) fail to teach first and second types of messages from the controller of such a system. As explained, Banks sends only one message, and the display panel displays each frame that is addressed to it, without further instruction. Banks, col. 7, ll. 10-29. Moreover, Trevers et al. and Lavelle et al. fail to cure this deficiency.

New independent claims 14 and 21 recite similar features of Applicants' disclosure and are likewise distinguished from Banks, Trevers et al. and Lavelle et al. New dependent claims 15-20, 22-27 and 29-34 depend from one of claims 14, 21 and 28, and are allowable for at least the reason that they depend from an allowable claim. Accordingly, Applicants respectfully request examination and allowance of new claims 14-34 along with claims 1-13.

**Conclusions**

In addition to the above remarks, Applicants note that the Office Action dated March 18, 2005, contains a number of statements characterizing the related art and the claims. Regardless of whether any such statement is discussed herein, Applicants decline to automatically subscribe to any such statement or characterization.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

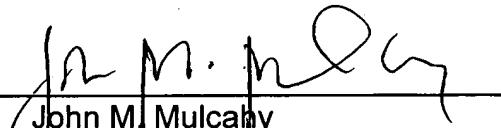
Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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